



AIRCRAFT  
MODIFICATIONS

P. O. Box 2216, Fullerton, California 92633



(714) 870-4610

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INSTALLATION INSTRUCTIONS FOR MET-CO-AIRE FORWARD & AFT  
FIN FAIRINGS

MCA P/N 1816-01 & 1815-01 RESPECTIVELY

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PRELIMINARY NOTES:

- A) Please read all instructions completely before beginning installation.
- B) Install these parts in accordance with the accepted methods and procedures as outlined in FAA regulations Part 43.13 and associated publication "Airframe and Powerplant Mechanics" AC 65-15A.
- C) These are direct replacement parts for the manufacturer originals. Accordingly they should be installed in the same manner as the originals. Any attendant parts such as stiffeners, doublers, mouldings, fasteners, etc. should be re-attached as per the original installation.

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TO INSTALL FORWARD FIN FAIRING P/N 1816-01

- 1) Remove existing fin from aircraft by carefully drilling off the heads of the rivets holding fin to fuselage. Drill only deep enough to sever head from shank. Be careful not to upset existing hole in fuselage.  
Remove rear screws and remove fin from aircraft.
- 2) Either by using a hole finder, or by tape and location marking, or by using the original fin as a template, locate the attachment holes and mark on the new part.
- 3) Drill the rivet mounting holes in the flange area of the new part using the correct size drill (normally a #30 .1825 Dia). Minimum edge distance is 1/4" (.250) from centerline of hole.
- Drill the screw mounting holes in the aft end of the part. This accepts a countersunk screw and washer assembly, therefore the finished hole size is 5/16" (.3125). Maintain an edge distance of at least 5/16" from centerline of hole.
- 4) Position fin into place as per original installation. Make sure hole alignments are correct. Rivet fin securely to fuselage using AN-470-AD-4-5 aluminum rivets. Note that length of rivet may vary according to the particular installation. Be sure to use the correct rivet for your individual application. Also use a lower pressure setting on rivet gun so as to avoid potential of damaging fiberglass fin.

(cont.)



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FWD. & AFT FIN FAIRINGS - INSTALL DWG. - PAGE 2 (cont.)

5) Screw aft end of fin into place using countersunk screw and washer assemblies as per original assembly. Screw is an MS24693-S48 (formerly AN507-832R6) 8-32 X 3/8" countersunk flat head machine screw. Screw is used with a (- 8) Tinnerman countersunk washer.

6) Ascertain no adverse interference or inadvertent damage has occurred to aircraft.

7) Make log book entry: "Installed Met-Co-Aire forward fin fairing p/n 1816-01 according to installation drawing SD 2802." FAA-PMA approved per STC # No weight change.

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TO INSTALL AFT FIN FAIRING P/N 1815-01

A) Review "Preliminary Notes" section - page 1.

1) Remove existing fairing from aircraft by unscrewing fin from vertical stabilizer and forward fin.

2) Either by using a hole finder, or by tape and location marking, or by using the original fin as a template, locate the attachment holes and mark on the new part. Be accurate.

3) On models carrying an internal stiffener located by the leading edge of the part, transfer this stiffener from the original part to the new one by squeeze riveting it into place using (4 ea.) AN-426-AD-3-3 countersunk rivets. (Again, length of rivet may vary according to particular situation.)

On models using Tinnerman clips, simply transfer the clips to the new part.

4) Drill 5/16" (.3125) mounting screw attachment holes in new part. Maintain a minimum edge distance of 5/16" from centerline of hole.

This part accepts an MS24693-S48 (formerly AN507-832R6) countersunk flat head machine screw (8-32 X 3/8") with a Tinnerman (-8) countersunk washer. Screw part securely in place as per original installation.

5) Ascertain no interferences or inadvertent damage has occurred to the aircraft.

6) Make log book entry: "Installed Met-Co-Aire aft fin fairing p/n 1815-01 according to installation drawing SD 2802." FAA-PMA approved per STC # No weight change.

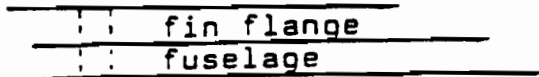
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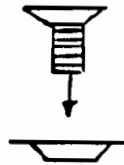
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FWD. & AFT. FIN FAIRINGS -INSTALL DWG. - PAGE 3 (cont.)

AN-470-AD-4-5  
RIVET (36 PLACES)



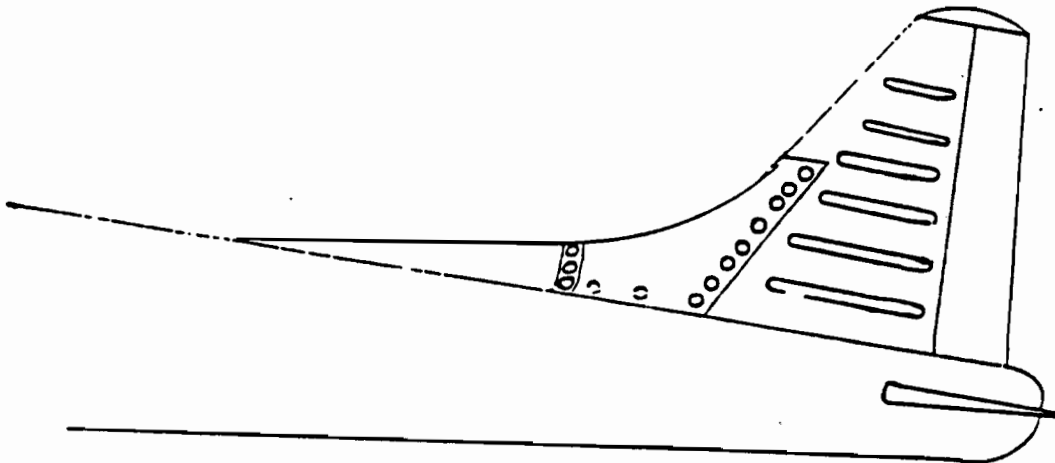
FORWARD FIN



MS24693-S48  
C.S. MACHINE SCREW  
(24 PLACES)

TINNERMAN (-8)  
C.S. WASHER  
(24 PLACES)

AFT FIN



PARTS LIST

<u>QTY</u>	<u>PART NO.</u>	<u>DESCRIPTION</u>
1	1816-01	FWD. FIN FAIRING
1	1815-01	AFT. FIN FAIRING

Applicable to Piper Models:

PA-28: - 140, 151, 161, 180, 181, 235, 236, 201T.

PA-28R: - 200, 201, 201T,

PA-28R: - T201 (fwd. only) T201T (fwd. only).

PA-32: 260, 300, 301, 301T.

PA-32R: 300, 301, 301T

PA-32RT: 300, 300T (fw

Dwg. Scale: None  
Date 12-6-90

Approved By:

Drawn By: RVV

Revised: